DoD IT Standards Management Brief

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IT Standards Topics

- Status of DODD 5101.dd
- Why We Need to Transform the IT Standards Setting Process
- Standards Setting Governance Framework
- Standards Setting Process
- IT Standards Working Group Framework
- DISR Content
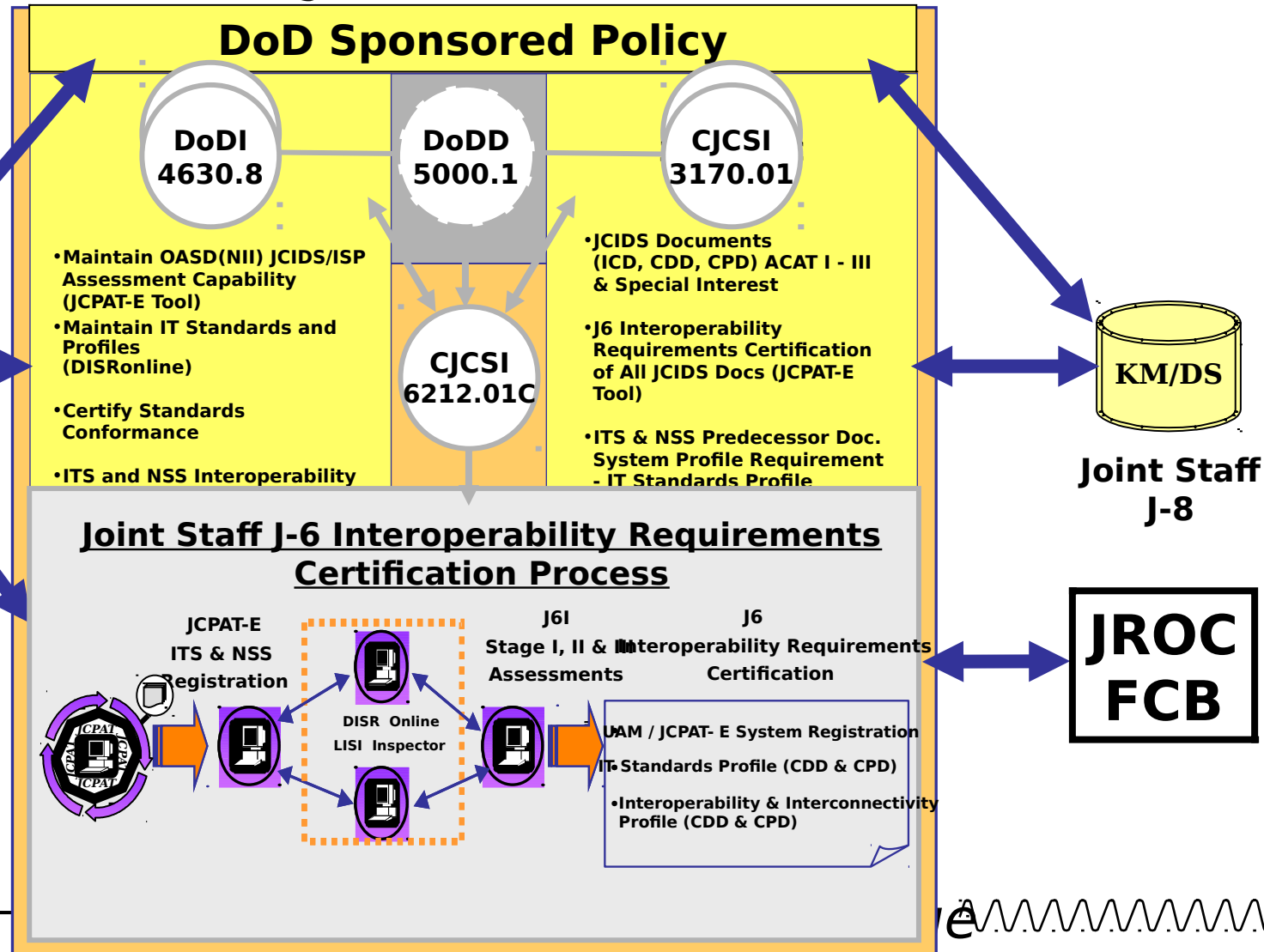- Major Milestones

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DoDD 5101.dd
DoD Executive Agent for IT Standards

- DA&M briefed on draft directive on 6 May 2004.

- DA&M signed Action Memo conveying package with Directive to DepSecDef on 6 May 2004.

- ES&CD/WHS finalized package prior to submittal for DepSecDef signature on 13 May 2004.

- Best guess by ODA&M staff: should be signed within the next week.

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Interoperability and Supportability Policy and Process

DoD Sponsored Policy

DoDI 4630.8

DoDD 5000.1

CJCSI 3170.01

CJCSI 6212.01C

- Maintain OASD(NII) JCIDS/ISP Assessment Capability (JCPAT-E Tool)
- Maintain IT Standards and Profiles (DISRonline)
- Certify Standards Conformance
- ITS and NSS Interoperability

- JCIDS Documents (ICD, CDD, CPD) ACAT I - III & Special Interest
- J6 Interoperability Requirements Certification of All JCIDS Docs (JCPAT-E Tool)
- ITS & NSS Predecessor Doc. System Profile Requirement - IT Standards Profile

JCPAT
JCPAT
JCPAT
JCPAT
JCPAT

Joint Staff J-6 OASD(NII)

KM/DS

Joint Staff J-8

Joint Staff J-6 Interoperability Requirements Certification Process

JCPAT-E ITS & NSS Registration

DISR Online LISI Inspector

J6I Stage I, II & III Assessments

J6 Interoperability Requirements Certification

- JAM / JCPAT- E System Registration
- IT Standards Profile (CDD & CPD)
- Interoperability & Interconnectivity Profile (CDD & CPD)

JROC FCB

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Why Transformation is Needed

- DoD Senior Leadership has Voiced Concern that:

  - JTA Revision Cycle is too Long and Unresponsive

  - JTA Standards are too Numerous and Outdated

  - IT Standards Process is not Sufficiently Focused on Implementing
    Net-Centric Concepts

- Since IT Standards Management Plan was Announced Nov 1993:

  - Title 10 USC Assigned the DoD CIO with Responsibility to Ensure IT and NSS Standards that will Apply Throughout the DoD are Prescribed

  - DoD 4630.5 and DoDI 4630.8 Revised DISA Responsibilities for IT Standards

  - DoD Adopted Capability-Based Requirements Process using Integrated Architectures as a Tool (CJCSIs 3170.01 and 6212.01)

  - DoDD 5101.dd will Formally Assign DISA as Executive Agent for IT Standards *Power to the Edge*

  - DISA has Reorganized IT Standards Management

Transformation Objectives and Precepts

Objectives

- Champion DoD's Re-Engagement of the IT Standards Communities

- Online IT Standards Registry

- Quarterly Update of IT Standards Registry

- Agile but Accountable Governance

- IT Standards Conformance and Compliance Process

- Intelligence Community Involvement

- Improved DoD Visibility and Participation in IT Standards Development Organizations

- Standards Profiles (TV-1) for all Programs

Precepts

- Responsive Governance:
  - Accountable to DoD CIO EB
  - SES/Flag Officer Policy and Direction
  - **06-level Coordination, Issue Adjudication**
  - **SES/Flag Issue Adjudication, IT Standards and Profile Approval**

- Key provisions:
  - Common Online Database of IT Standards and Profiles (DoD IT Standards Registry)
  - Technology/CES, Domain, and System Profiles
  - Standing IT Standards Working Groups Organized by CIO Core Enterprise Services

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IT Standards Governance

CIO EB	**Chair: ASD NII/DCIO**	• **Overarching Guidance & Direction** • **Policy** • **Strategic Planning** • **Final Arbiter**
IT Standards Oversight Panel	**Tri-Chairs: USD(AT&L) ASD(NII)/DCIO & J6**	• **Issue Resolution** • **Planning** • **Implementation** • **Priorities** • **Enforcement** • **Direction** • **Approval** • **Programmatic**
IT Standards Committee	**Chair: DISA GE332 (Appointed by DoD EA for IT Standards)**	• **Management** • **Recommend** • **Direction** • **Issue Adjudication** • **Coordination** • **Adoption** • **Periodic Review** • **Priority Setting** • **IT Standards** • **Project Oversight** **Promulgation** • **Cross Functional Integration**
IT Standards Working Groups	**ISWG Chairs: Appointed by DoD EA for IT Standards)**	•**Work Plan Proposal** •**Technical Harmonization** •**Technical Development** •**Coordination** •**Technical Collaboration & Interface** •**Technical Development Issues** •**Synchronization** •**External Representation** •**Implementation** •**Technical Collaboration**

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A Net-Centric DoD
NII/CIO

IT Standards Governance Membership

CIO EB

Chair: ASD NII/DCIO

USD (AT&L) USD (C)   USD (P&R)   Service/USMC CIOs Joint Staff CIO IC CIO   USJFCOM CIO
 DPA&E   Joint Staff J6   USN N6   USAF AF/XI-2   DepDIR NSA   Dir DISA   DoD OGC

• Overarching Guidance & Direction   • Policy   • Adjudication   • Strategic Planning

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IT Standards Oversight Panel

MCEB/MIB

Tri-Chairs USD(AT&L), ASD(NII)/DCIO, & J6

AT&L NII DISA SERVICES/AGENCIES   IC CIO JFCOM J2
J4   J6

TCO/NASA

• Issue Resolution • Planning   • Direction
• Implementation • Priorities • Enforcement
• Programmatics • Approval

Defense Standardization Council

External Entities & Activities

IT Standards Committee

Chair: DISA GE332

ASD(NII)/DCIO USD (AT&L) USA   USN   USAF   USMC USCG   Joint Staff DJ6A   DIA
  NSA   DLA   DTRA DMSO MDA   NGA NRO   DARPA   SOCOM   TRANSCOM
       USD(P&R)/HA   DFAS   JFCOM   IC CIO   J2   J4   J6

• Management Direction • Priority Setting   • Periodic Review   • Adoption
• Issue Adjudication • Project Oversight   • Coordination   • IT Standards Program
 • Recommend   • Cross Functional Integration • Technical Collaboration   Promulgation

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Role of the Chief Information Officer Executive Board (CIO EB)

- IT Strategic Planning
- Establishes Policies that will Facilitate IT Standards Interoperability
- Provides High-Level Guidance and Direction for the DoD Adoption of IT and NSS Standards
- Approves Changes in Scope and Applicability of the DISR
- Is the Final Approving and Adjudicating Authority for the DISR

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Role of the
IT Standards Oversight Panel (ISOP)

- Prioritizes and Synchronizes IT Standards Direction in DoD

- Approves IT Standards and Profiles

- Coordinates with MCEB and Defense Standardization Council

- Determines and Recommends Changes in Scope and Applicability of the DISR to the CIO EB

- Appoints Members to the ITSC

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Role of the
IT Standards Committee (ITSC)

- Recommend Standards and Profiles for Approval by ISOP
- Manage the Standards and Standards Profile Review Process
- Configuration-Manage the DISR
- Refer Change Requests to Appropriate ISWGs for Evaluation
- Resolve Unresolved Change Requests Raised from the ISWGs
- Form or Disband Ad Hoc ISWGs to Address Specific Technical or Non-Technical Issues
- Ensure that Mandated Standards are Entered into the DODISS Database

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Role of the
IT Standards Working Groups
(ISWGs)

- Identify New Standards to Include in DISR
- Elevate Emerging Standards to Mandated Status Once the DISR Selection Criteria has been Met
- Update Existing Standards to Reflect Latest Release
- Sunset Standards Identified as Being Near the End of Their Lifecycle
- Retire Standards No Longer Essential to Interoperability
- Identify, Develop, Maintain Standard Profiles that Facilitate a Net-Centric Environment

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ITSC POCs (Partial List)

DISA (GE33):   Mike Oconnor (Chair)

ASD(NII- A&I):   Len Tabacchi

Joint Staff: Robert Allen (J2), Freddie Allen (J4),
    Charles Schaffer (J6)

USD (AT&L-A&S): Ken HongFong

Army CIO: John Shipp

Navy (NAVSEA):   Jerry Murdock

USMC (MCSC): Joe Johnson

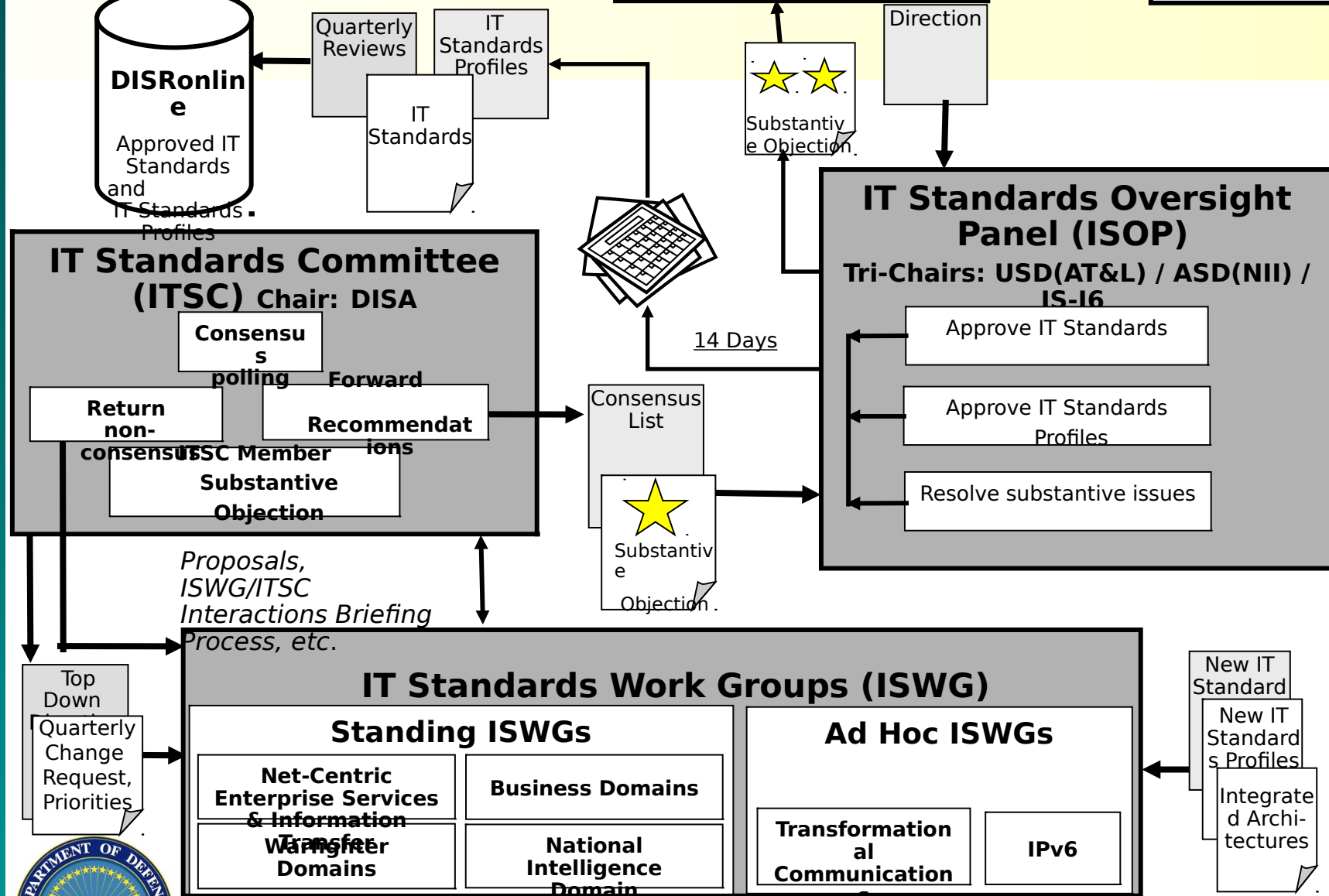AF/XIWA: Col Alan Moore

DIA (G2): Rubin Jacob

DFAS: Niki Bryant
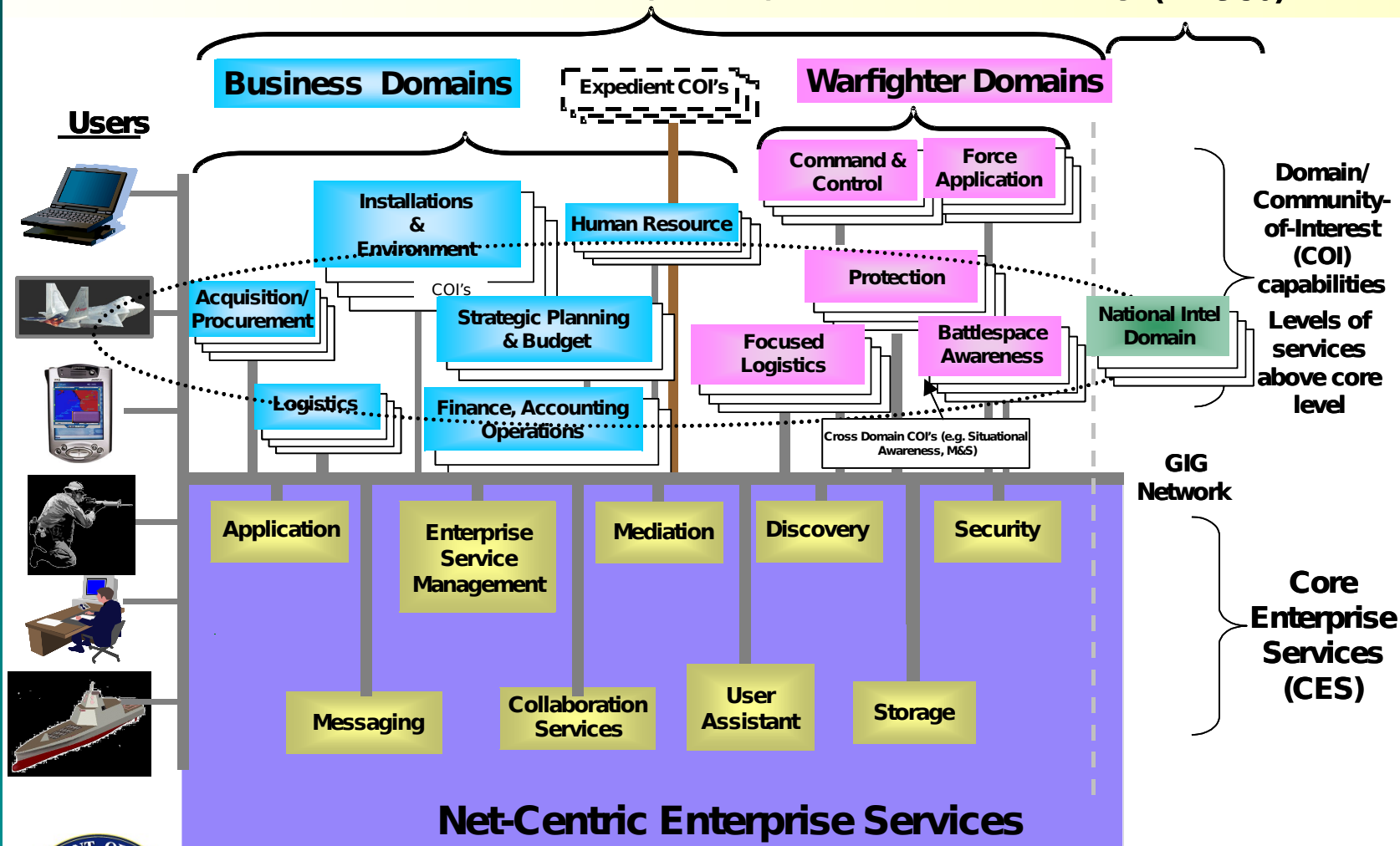
IC CIO: Mark Bootz

NSA: Jim Brett

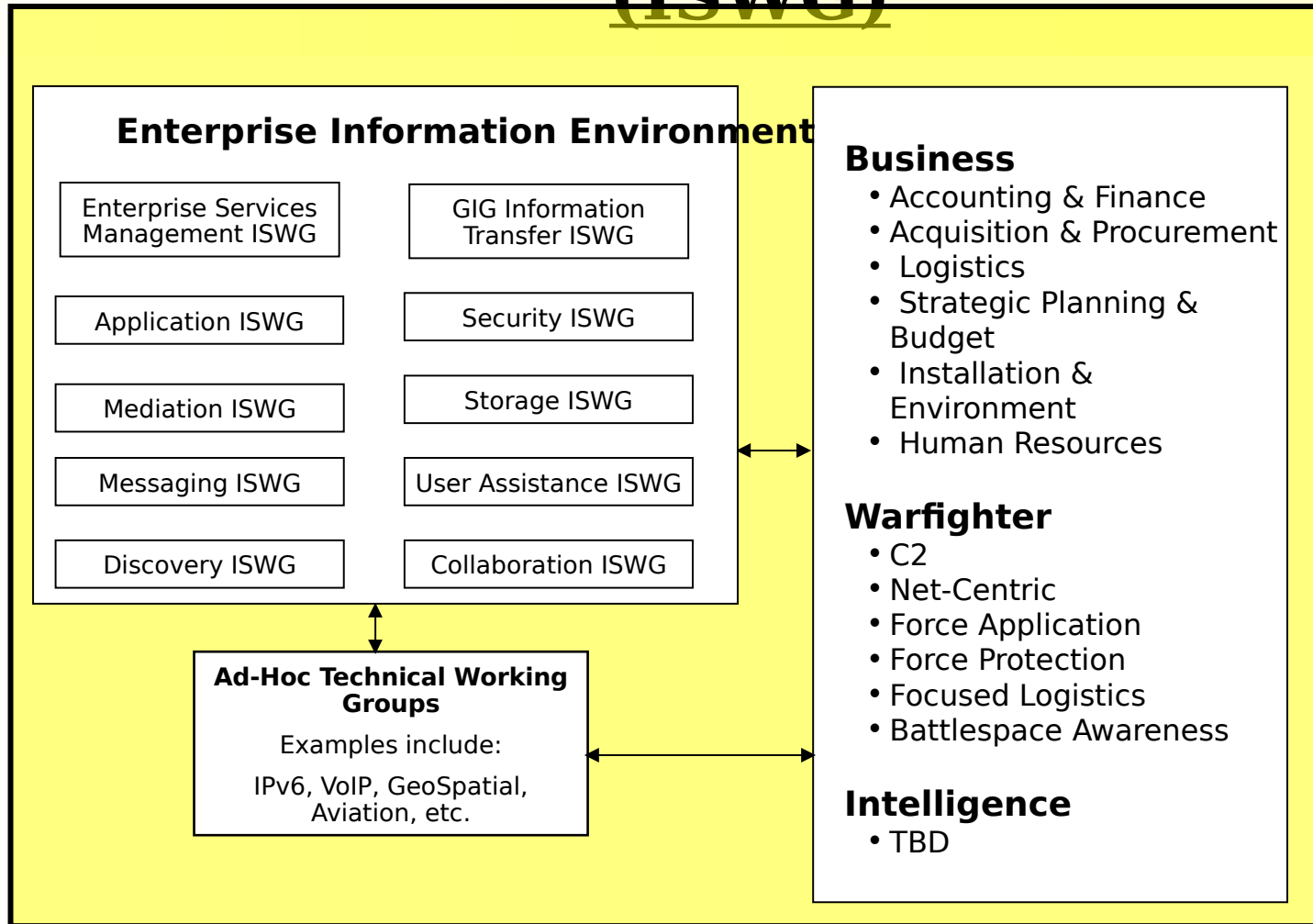*Power to the Edge*

IT Standards Review, Approval, and Substantive Objection Process

CIO EB
ASDNII/DoD CIO

Acquisition Issues

DAB
USD(AT&L)

Direction

Quarterly Reviews

IT Standards Profiles

IT Standards

DISRonline
Approved IT Standards and IT Standards Profiles

Substantive Objection

IT Standards Oversight Panel (ISOP)
Tri-Chairs: USD(AT&L) / ASD(NII) / IS-I6

Approve IT Standards

Approve IT Standards Profiles

Resolve substantive issues

IT Standards Committee (ITSC) Chair: DISA

Consensus polling

Forward Recommendations

Return non-consensus

ITSC Member Substantive Objection

14 Days

Consensus List

Substantive Objection

Proposals, ISWG/ITSC Interactions Briefing Process, etc.

Top Down

Quarterly Change Request, Priorities

IT Standards Work Groups (ISWG)

Standing ISWGs

Net-Centric Enterprise Services & Information Transfer

Business Domains

Warfighter Domains

National Intelligence Domain

Ad Hoc ISWGs

Transformational Communications

IPv6

New IT Standard

New IT Standards Profiles

Integrated Archi-tectures

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IT Standards Working Groups (ISWG)

Enterprise Information Environment

Enterprise Services Management ISWG	GIG Information Transfer ISWG
Application ISWG	Security ISWG
Mediation ISWG	Storage ISWG
Messaging ISWG	User Assistance ISWG
Discovery ISWG	Collaboration ISWG

Ad-Hoc Technical Working Groups

Examples include:

IPv6, VoIP, GeoSpatial, Aviation, etc.

Business
- Accounting & Finance
- Acquisition & Procurement
- Logistics
- Strategic Planning & Budget
- Installation & Environment
- Human Resources

Warfighter
- C2
- Net-Centric
- Force Application
- Force Protection
- Focused Logistics
- Battlespace Awareness

Intelligence
- TBD

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ITSC-ISWG Chairs (Partial List)

IT Standards Working Group   Chair

- GIG Information Transfer   Don Choi
- Application   Ken Dolson
- Collaboration   Klaus Rittenbach
- Discovery   Bill Wong
- Enterprise Service Management   Bill Wong
- Mediation   Elaine Babcock
- Messaging   Lynda Dallas
- Storage   Carl Young
- User Assistant   Carl Young
- Security/Information Assurance (IA), Cryptologic,
   and Intel Russ Richards

DoD Information Technology Standards Registry (DISR) Content

Governance & General Information Area	Block Profiles			NCOW TV-2
	High Visibility Technology Profiles	Domain Stds Profiles	CES Stds Profiles	
Policy	IPv6 PKI Etc.	Warfighting Business DoD Intel	Discovery Messaging Applications Security Etc.	
FAQs CM Procedures	GIG Key Interface Profiles			Interfaces to Analysis Tools & Related Repositories (DARS, JCPAT-E, LISI Inspector)
User Guides	System Profiles Registry (PM-built profiles per 4630/6212)			
Links POCs	Profile Assistance Software			
Standards Repository (Tags: Mandated, Emerging, Sunset, and Inactive/Retired)				

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Major Milestones/Implementation Schedule

- DoDD 5101.dd, "DoD Executive Agent for IT Standards"

- DoD IT Standards Management Plan, Charters, & SOP

- DoD IT Standards Registry (DISR) Development

- Form IT Standards Oversight Panel (ISOP), IT Standards Committee (ITSC), and IT Standards Working Groups (ISWGs)
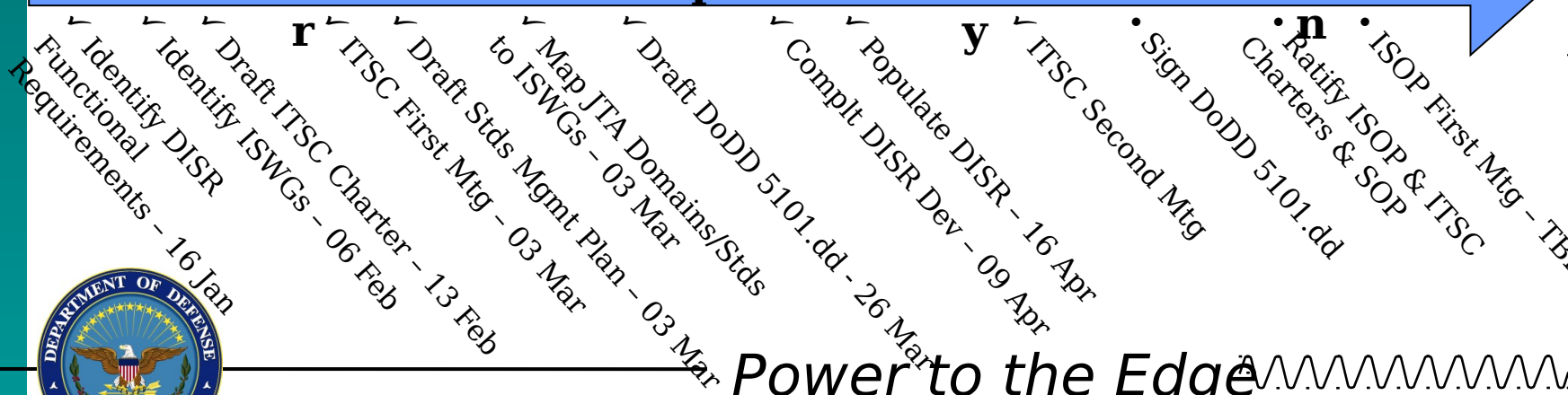
2004

Feb	Mar	Apr	May	Jun

- Identify Functional Requirements – 16 Jan
- Identify DISR
- Identify ISWGs – 06 Feb
- Draft ITSC Charter – 13 Feb
- ITSC First Mtg – 03 Mar
- Draft Stds Mgmt Plan – 03 Mar
- Map JTA Domains/Stds to ISWGs – 03 Mar
- Draft DoDD 5101.dd – 26 Mar
- Complt DISR Dev – 09 Apr
- Populate DISR Dev – 16 Apr
- ITSC Second Mtg
- Sign DoDD 5101.dd
- Ratify ISOP & ITSC Charters & SOP
- ISOP First Mtg – TBD

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Summary

- Responsive and Agile Governance Structure

- Standing Technical Working Groups Address Day-to-Day Standards Issues

- ISWG Standards Groups Organized by GIG Core Enterprise Services

- Intelligence Community Involved at All Levels

- DoD IT Standards Registry (DISR) Contains:

  – ISOP-Approved IT Standards

  – ISOP-Approved IT Standards Profiles

  – DISR Baseline Updated Quarterly

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Questions?

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Back-up

List of Acronyms

- ASD(NII) - Assistant Secretary of Defense (National Information Infrastructure)
- CES – Core Enterprise Services
- CIO EB – Chief Information Officer Executive Board
- CIWG – Collaboration Interoperability WG under the MCEB
- CJCSI - Chairman of Joint Chiefs of Staff Instruction
- CoI – Community of Interest
- DGCS – Distributed Common Ground Systems
- DISR - DoD IT Standards Registry (Replacing the JTA)
- DoDD - DoD Directive
- DoDI - DoD Instruction
- DODISS – Department of Defense Index of Specifications and Standards (DoD's Single stock point for Military specifications, Stds and related publications)
- EA – Executive Agent
- FCB – Functional Capabilities Board
- FCS – Future Combat Systems GIG – Gigabit Enterprise Services
- ISOP - IT Standards Oversight Panel

- ISWG - IT Standards Working Group (under the ITSC)
- IT - Information Technology
- ITSC - IT Standards Committee (Replacing the JTADG)
- JCIDS - Joint Capabilities Integration and Development System
- JCPAT – Joint C4I Program Assessment Tool
- JROC – Joint Requirements Oversight Council
- JTRS – Joint Tactical Radio System
- KM/DS – Knowledge Management/Decision Support Tool
- MCEB – Military Communication Electronics Board
- NSS - National Security Systems
- SES – Senior Executive Service
- Std – Standard(s)
- TV-1 – Technical View 1 – See DoD Architecture Framework
- WG – Working Group
- WIN-T – Army Warfighter Information Network, Tactical

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<u>Required Architecture Products</u>

Document	Net-Ready Key Performance Parameter Products															LISI Profile
	Supporting Architecture Products												NCOW RM Correlation	KIP Compliance	IA Compliance	
	AV-1	OV-1	OV-2	OV-3	OV-4	OV-5	OV-6C	SV-1	SV-4	SV-5	SV-6	TV-1				
ICD		X											X			
CDD	X		X		X	X	X		X	X	X	X	X	X	X	X Basic
CPD	X		X		X	X	X		X	X	X	X	X	X	X	X Complete
CRD		X		1		2							2	2	2	
ISP	3	3	3		3	3	3	3	3	3	3	3	3	3	3	X Complete

Note: X= Required
(1) Old/Legacy CRDs Updates
(2) New CRDs
(3) ACAT, Non-ACAT and Fielded Systems. NR KPP products produced for the CDD and CPD will be used in the ISP

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Integrated Architecture Product Relationships

Overview and Summary Information	Organizational Relationships	Operational Activity Model	Operational Node Connectivity	Operational Event-Trace Description
AV-1	OV-4	OV-5	OV-2	OV-6c

Precepts and assumptions	Nodes participating in operational activities	Activity hierarchy and process flow	Nodes mapped to lifelines

Operational Activity to Systems Function Traceability Matrix	Systems Data Exchange Matrix
SV-5	SV-6

Correlated activities

Operational capability to required system correlation

Correlated systems functions	Applicable standards for a given architecture

Systems Functionality Description	Technical Standards Profile
SV-4	TV-1

Information needs … (AV-1, OV-2, OV-4, OV-5, SV-4, SV-5, SV-6)

Information timeliness … (OV-6c, SV-5, SV-6)

Information assurance … (OV-5, SV-4, SV-5, SV-6)

Net-enabled … (OV-2, SV-4, SV-5, TV-1

Profile Definitions

1. CES/Technology Profiles

– *Developed* by IT Standards Committee (via the IT Standards Working Groups) and *Approved* by IT Standards Oversight Panel

– Technology-Based (e.g., VoIP, IPv6) or generic information transfer profiles (e.g. GIG Technical Information Transfer Profile and CES generic profiles)

2. Domain Profiles

– *Developed* and *Approved* by Warfighter and Business Domain CoI's (external to IT Standards Committee), and other CoI's related to IT Standards Working Groups

– Functionally aligned with GIG Domain CoI's and/or other CoI's (i.e., Aviation) includes all required standards

– Includes CES/ Technology Profile standards (possibly with options specified)
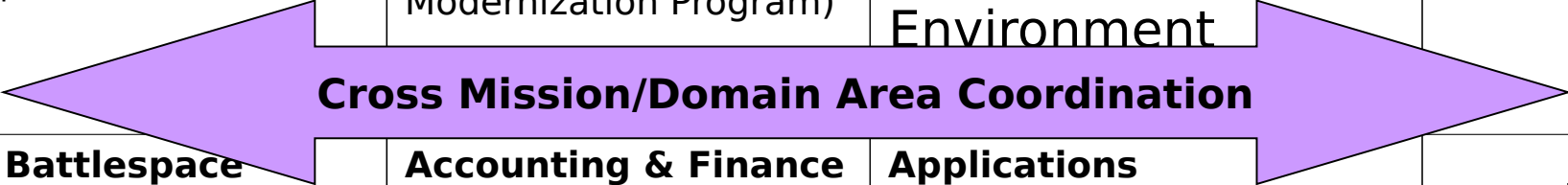
3. System Profiles (Project/Program)

– *Developed* by PMs and compliance *verified* by EA
– Includes standards from Domain and CES/Technology Profiles (including identified differences) and additional standards
– Development facilitated by DISR and IT

CES/Technology Profiles

Domain Profiles

System Profiles
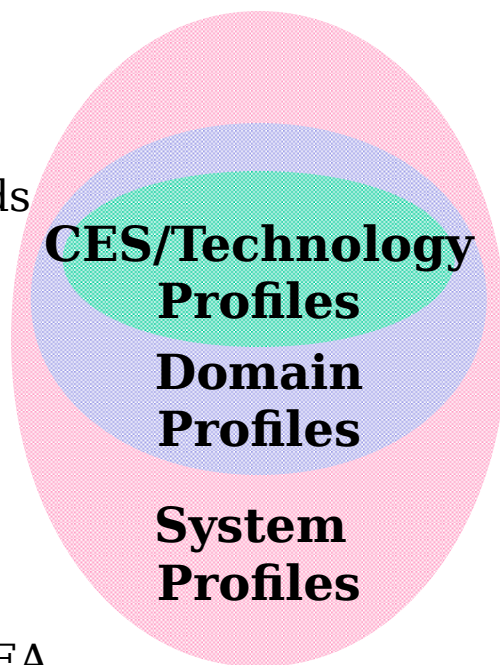
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GIG Portfolios/ISWG Framework

Warfighter	Business (Business Management Modernization Program)	Enterprise Information Environment	Intel l
Cross Mission/Domain Area Coordination			

Battlespace Awareness
C2
Net-Centric
Force Application
Force Protection
Focused Logistics
	Accounting & Finance
	Acquisition & Procurement
	Human Resources
	Installation & Environment
	Logistics
	Strategic Planning & Budget
		Applications
		Collaboration
		Discovery
		Enterprise Services Management
		GIG Information Transfer
		Mediation
		Messaging
		Security
		Storage
		User Assistance
		• **Ad-Hoc Technical WGs**
		   – **Aviation**
		   – **GeoSpatial**
		   – **Ground Vehicles**
		   – **IPv6**
		   – **VoiP**	

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Key Interface Profiles

- ☑ Refined Operational View

- ☑ Refined System View

- ☑ Interface Control Specifications -- Interface Control Document (ICD)

- ☑ Technical View & SV-TV Bridge

- ☑ Configuration Management Plan

- ☑ Procedures for standards conformance and interoperability testing utilizing reference implementations

- ☑ Engineering Management

	Communications KIPs
1.	Logical Networks to DISN Transport Backbone
2.	Space to Terrestrial Interface
3.	JTF to Coalition
4.	JTF Component to JTF Headquarters
5.	Teleport (i.e., deployed interface to DISN)
6.	Joint Interconnection Service
7.	DISN Service Delivery Node
8.	Secure Enclave Service Delivery Node (e.g., SCI/Collateral KIP)
	Computing KIPs
9.	Application Server to Database Server
10.	Client to Server
11.	Applications to COE/CCP(NCES/GES)
	Network Operations KIPs
12.	End System to PKI
13.	Management Systems to (integrated) Management Systems
14.	Management Systems to Managed Systems
15.	IDM to Distribution Infrastructure
16.	Information Servers to IDM Infrastructure
	Applications
17.	Application Server to Shared Data - FIOP (SADI)

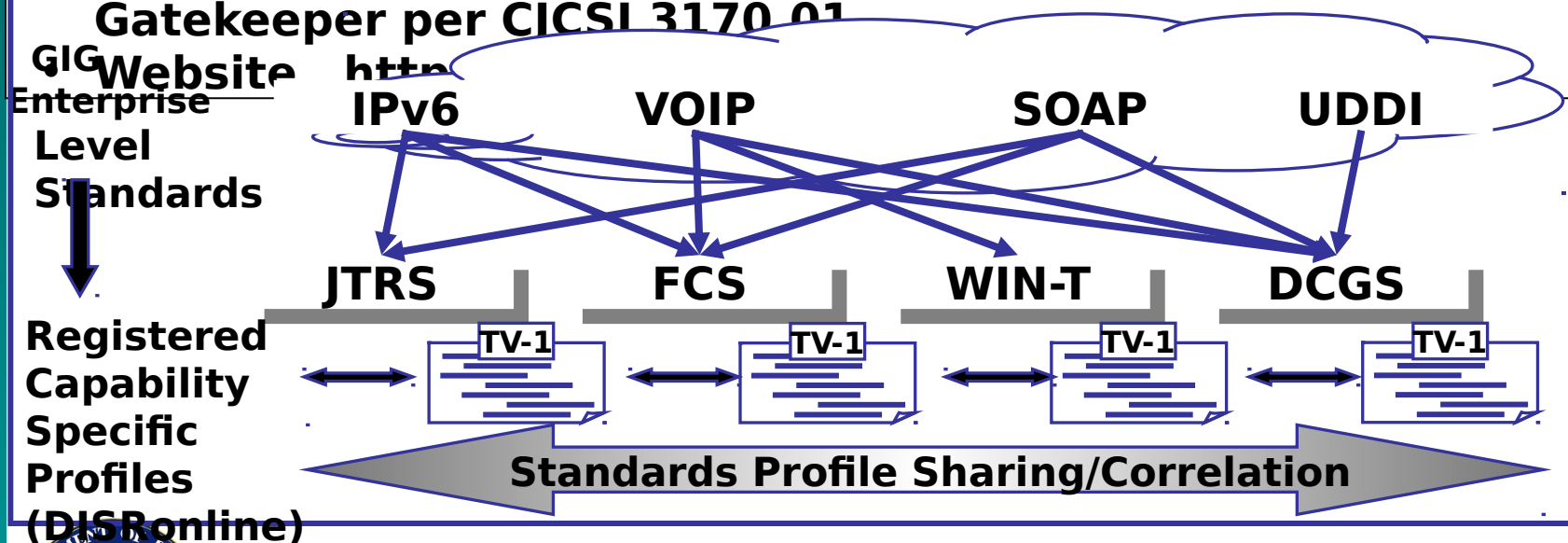*Power to the Edge*

So You Want To Be Involved In IT & NSS Standards?

DISRonline Capability

- **DISRonline is DoD's electronic web-accessible database of IT standards that provides the minimal set of information technology standards adopted by Services, Agencies, and Combatant Commands consensus to enable Joint/Combined interoperability**

- **DISRonline database structure ensures that PMs use a structured process to develop their system's IT Standards Profile (TV-1) before JCIDS documents are submitted to the Gatekeeper per CJCSI 3170.01**
- **Website   http**

GIG Enterprise Level Standards

| IPv6 | VOIP | SOAP | UDDI |

| JTRS | FCS | WIN-T | DCGS |

Registered Capability Specific Profiles (DISRonline)

| TV-1 | TV-1 | TV-1 | TV-1 |

Standards Profile Sharing/Correlation

Definition of ITSC Consensus

What constitutes Consensus? <u>Webster's Definition:</u> **General agreement, the judgment arrived at by most of those concerned.**

What Exactly Is ITSC Consensus?

- **ITSC consensus is a decision making process which equalizes power over the ITSC.**
- **Instead of simply voting for an item, and having the majority of the ITSC get their way, the ITSC has to sit down and get a solution to a problem that the ITSC agrees with.**
- **ITSC members take different ideas and the ITSC Chair sees how the ITSC members feel about these ideas.**
- **The solution that the ITSC thinks is the most positive gets chosen, unless a member of the ITSC finds the solution totally unacceptable.**
- **That ITSC member would then raise a "Substantive Objection."**
- **ITSC Consensus is based on compromise, and the ability to find common ground.**

Why Would the ITSC Want to Use Consensus?

- Consensus is a system that promotes participation because each ITSC member has the power to make changes in the system, and to prevent changes that they find unacceptable.

- Since ITSC consensus gives each ITSC member the power to have their voice be heard, it forces the ITSC body to listen to each other, and answer concerns raised instead of moving past these issues.

But, What's Wrong with a Majority Rule System?

- The majority rule system is set up to have a winner and a loser.
- This promotes conflict, and lends itself to steamrolling an idea over a minority that dissents with the majority opinion.
- People in a majority rule system don't need to listen to the dissenting minority, or take their opinion seriously because they can simply outvote them.
- Majority rule systems say that the majority is infallible and they have nothing to learn from the minority opinion.